Virginia Department of Conservation & Recreation

Date Prepared: May 27, 2014
Prepared By: Michael Winters, P.E.

ANNUAL INSPECTION REPORT FOR VIRGINIA REGULATED IMPOUNDING STRUCTURES

Reference: Impounding Structures Regulations, 4VAC 50-20-10 et seq., including 4VAC 50-20-105, Virginia Soil and Water Conservation Board

Owner's Information

Name of Dam:	Possum Point Power Station Ash Pond ABC Dam	Inventory Number:	NA
Owner's Name:	Dominion Generation	Location-County/City:	Prince William County
Contact Person (if different from above):	Michael Winters, P.E.		
Owner's Address:	5000 Dominion Boulevard, Glen Allen, VA 23060	Hazard Classification:	Low
Name of reservoir:	Possum Point Power Station Ash Pond ABC		
Purpose of reservoir:	contains coal ash		
Telephone No.:	(Residential) 804-347-9451	(Business)	804-273-2376, cell: 804-347-9451
Other means of communication:	michael.j.winters@dom.com		

Owner's Engineer

Name of Engineering Firm and Engineer: Dominion Power Generation Engineering, Michael Winters, P.E.
Professional Engineer Virginia License Number: 33623
Mailing Address: 5000 Dominion Boulevard
Glen Allen, VA 23060

Telephone No.: (Business) 804-273-2376, cell: 804-347-9451

Directions: Make note of all pertinent conditions and changes since the last inspection, or, if this is the first inspection, since the filing of a design report.

Date of This Inspection **April 2, 2014**
Date of Last Inspection **unknown**

1. EMBANKMENT

a. Any alteration made to the embankment? none

b. Erosion on embankment? Erosion on A and C sections. See attached photos.

c. Settlement, misalignment or cracks in embankment? Apparent settlement on sections A and C. No cracks or misalignment observed.

d. Seepage? If so, seepage flow rate and location (describe any turbidity and observed color within the flow): No seepage observed on the embankment.

2. UPSTREAM SLOPE

a. Woody vegetation discovered? Yes. See attached photos.
b. Rodent burrows discovered? none observed
c. Remedial work performed? none

3. INTAKE STRUCTURE

a. Deterioration of concrete? Upstream top edge damaged. See attached photos.
b. Exposure of rebar reinforcement? At above described damage. See attached photos.
c. Is there a need to repair or replace the trash rack? NA
d. Any problems with debris? no
e. Was the drawdown valve operated? NA

4. ABUTMENT CONTACTS

a. Any seepage? If so, estimate the flow rate and describe the location of the seep or damp areas (describe any turbidity and observed color within the flow):

None observed.

5. EARTHEN EMERGENCY SPILLWAY NA

a. Obstructions to flow? If so, describe plans to correct:

b. Rodent burrows discovered?

c. Any deterioration in the approach or discharge channel?

6. CONCRETE EMERGENCY SPILLWAY NA

a. Deterioration of concrete?

b. Exposed steel reinforcement?

c. Any leakage below concrete spillway?

d. Obstructions to flow? If so, lists plans to correct:

7. DOWNSTREAM SLOPE

a. Woody vegetation discovered? Heavy

b. Rodent burrows discovered? None observed

c. Are seepage drains flowing? NA

d. Any seepage or wet areas? None observed on the downstream slope.

8. OUTLET PIPE

a. Any water flowing outside of discharge pipe through the Impounding Structure? None observed.

b. Describe any deflection or damage to the pipe: The final downstream segment of pipe is disconnected. See photo attached.

9. STILLING BASIN NA

a. Deterioration of concrete structures?

b. Exposure of rebar reinforcement?

c. Deterioration of the basin slopes?

d. Repairs made?

e. Any obstruction to flow?

10. GATES NA

a. Gate malfunctions or repairs?

b. Corrosion or damage?

c. Were any gates operated? If so, how often and to what extreme?

11. RESERVOIR/WATERSHED

a. New developments upstream of dam? no

b. Slides or erosion of lake banks around the rim? no

c. General comments to include silt, algae or other influence factors: The reservoir is primarily comprised of ash with discreet ponds at various locations.

12. INSTRUMENTS

a. List all instruments none

b. Any readings of instruments? NA

c. Any installation of new instruments? NA

13. DOWNSTREAM/HAZARD ISSUES

a. New development in downstream inundation zone? no

b. Note the maximum storm water discharge or peak elevation during the previous year. Max observed El. 21.6 ft.

c. Was general maintenance performed on dam? If so, when? no

d. List actions that need to be accomplished before the next inspection: None relating to downstream/hazard issues.

14. OVERALL CONDITION ASSESSMENT OF IMPOUNDING STRUCTURE AND APPURTENANCES

(Check one) ☐ **SATISFACTORY** ☐ **FAIR** ☐ **POOR** ☐ **UNSATISFACTORY** ☒ **NOT RATED**

1. SATISFACTORY
No existing or potential dam safety deficiencies are recognized. Acceptable performance is expected under all loading conditions (static, hydrologic, seismic) in accordance with the applicable regulatory criteria or tolerable risk guidelines.
2. FAIR
No existing dam safety deficiencies are recognized for normal loading conditions. Rare or extreme hydrologic and/or seismic events may result in a dam safety deficiency. Risk may be in the range to take further action.
3. POOR
A dam safety deficiency is recognized for loading conditions which may realistically occur. Remedial action is necessary. POOR may also be used when uncertainties exist as to critical analysis parameters which identify a potential dam safety deficiency. Further investigations and studies are necessary.
4. UNSATISFACTORY
A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution.
5. NOT RATED
The dam has not been inspected, is not under state jurisdiction, or has been inspected but, for whatever reason, has not been rated.

General Comments: This dam was discovered by Dominion in a recent document search and field reconnaissance.

Recommendations: Perform subsurface exploration, stability analysis, hydraulics and hydrology analysis. Repair erosion and settlement and remove trees from upstream and downstream slopes. Place sand bags while obtaining permits and preparing design. Remove the final downstream section of the outlet pipe.

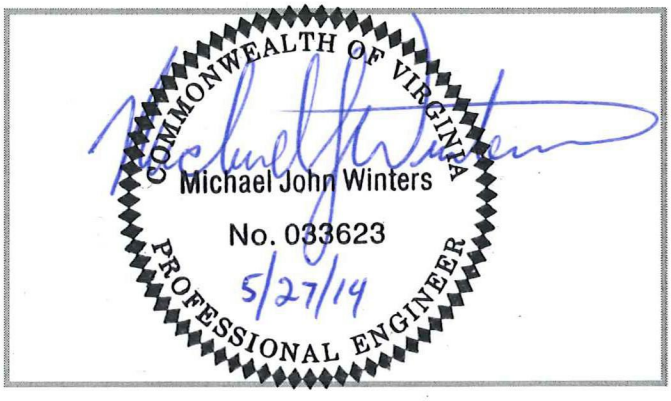
CERTIFICATION BY OWNER'S ENGINEER (required only when an inspection by an engineer is required)

I hereby certify that the information provided in this report has been examined by me and found to be true and correct in my professional judgment.

Signed: _____ Michael Winters, P.E. Virginia Number: 33623
Professional Engineer's Signature Print Name

This 27th day of May , 20 14 .

Engineer's Virginia Seal:



CERTIFICATION BY OWNER

I hereby certify that the information provided in this report has been examined by me.

Signed: _____ Michael Winters, P.E.
Owner's Signature Print Name

This 27th day of May , 20 14 .

Mail the executed form to the appropriate
Department of Conservation and Recreation
Division of Dam Safety and Floodplain Management
Regional Engineer

00013692

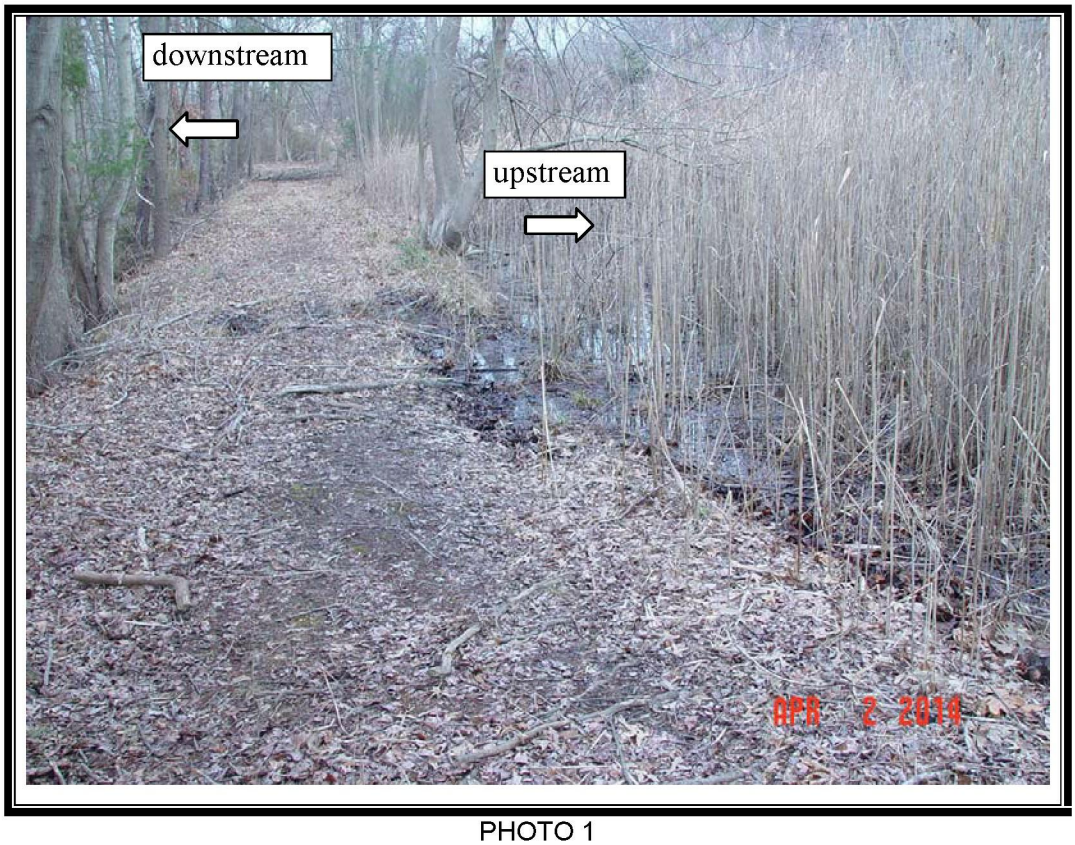


PHOTO 1
Dam crest, typical.

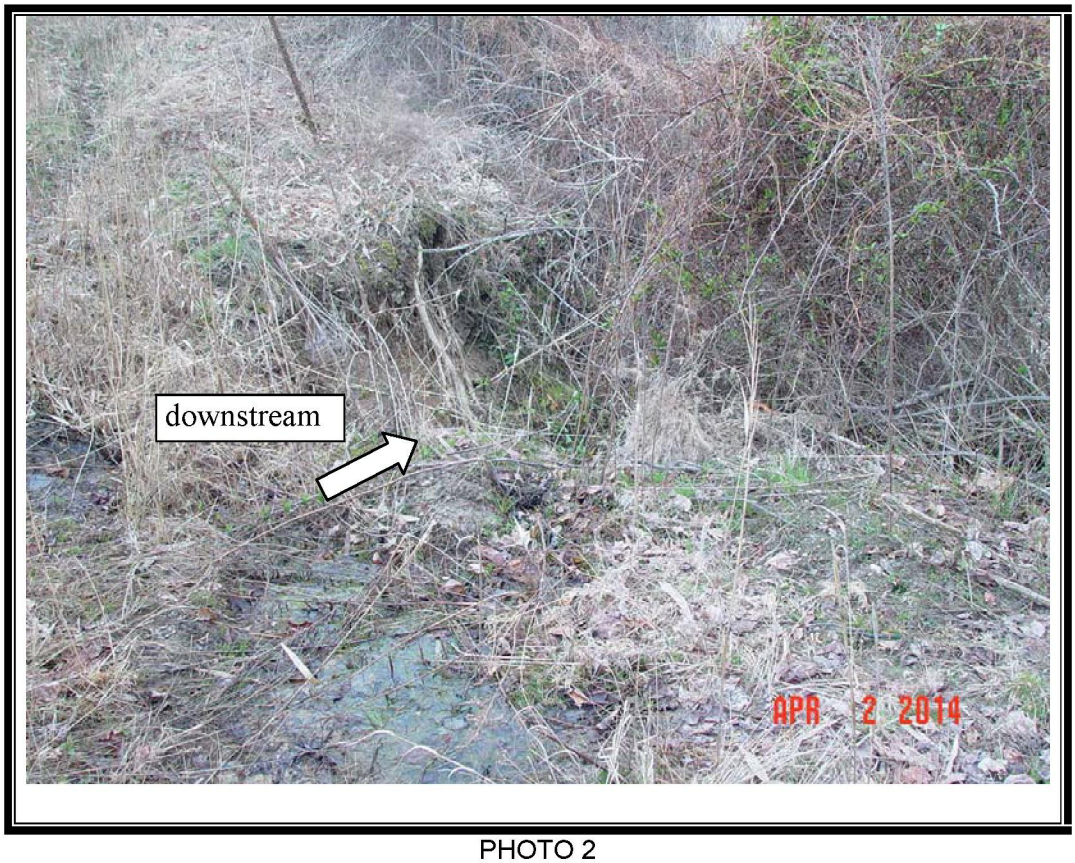


PHOTO 2
Erosion of crest and downstream slope.

PHOTO 3

PHOTO 4
Downstream slope, typical.

PHOTO 5
Outlet pipe, downstream end, looking downstream.